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## A Cavernicolous Pseudoscorpion of the Genus Microcreagris from Southern Tennessee

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The genus *Microcreagris* is widely represented in the epigeal fauna of the eastern United States. In addition, three troglobitic species have been described by Chamberlin (1962) from caves in Virginia and Alabama. Of these three the most highly modified is *M. valentinei* from Cudjo's Cave, in Lee County, Virginia [but erroneously located by Chamberlin (p. 350) at Cumberland Gap, Tennessee]. The present paper describes another highly modified form, from Nickajack Cave in Marion County, Tennessee.

## Microcreagris nickajackensis, new species

Material: Holotype male (WM 754.01001) collected in Nickajack Cave, 0.6 mile south of Shellmound Station, Marion County, Tennessee on 1 August 1964 by R. Horton.

Description: Male: A highly modified troglobitic species of the genus—eyeless, pale in color and with greatly attenuated appendages. Carapace about one-third longer than wide, the greatest width being just behind the "ocular" region; epistome small and rounded; no eyes present; surface smooth dorsally and becoming finely reticulated on the sides. Carapacal setae 4-6-4-4-2-6=26.

Abdomen typical. Tergal chaetotaxy 6:6:6:7:8:7:8:7:8:6:6:mm. Genital area typical. Sternal chaetotaxy  $7:[(6)(4)]:(3)_{10}^{9}(3):(2)6(2):8:10:9:10:9:9:6:mm$ .

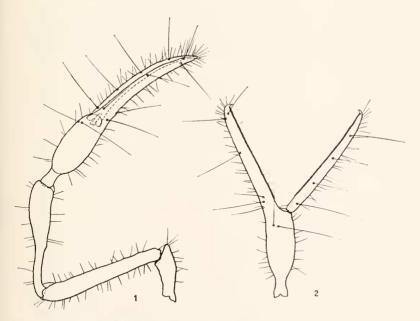
Chelicera less than two-thirds the length of the carapace; 2.21 times as long as broad. Right palm with six and left palm with seven setae; fixed finger with a row of 17–19 teeth, of medium size and pointed at the proximal end but becoming small and rounded distally; movable finger with 11–12 teeth, smallest at the proximal end and becoming larger distally; galea short, slender and unbranched; serrula exterior with about 35 blades; serrula interior with about 20 blades; flagellum of eight setae, of which all but the most proximal one or two are unilaterally pinnate.

Palps very long and slender; proportions of the podomeres as shown in Fig 1; placement of the tactile setae of chela as shown in Fig. 2. Fixed finger with 118 low, rounded, contiguous teeth; movable finger with 119 similar teeth. Trochanter 2.9, femur 7.2, tibia (including pedicel) 5.2, chela (without pedicel) 6.0, and hand (without pedicel) 2.2 times as long as broad; movable finger 1.95 times as long as hand.

Legs long and slender; leg I with basifemur 4.9, telofemur 4.0 and tibia 7.2 times as long as deep; leg IV with entire femur 6.0 and tibia 9.3 times as long as deep. Leg IV with a true tactile seta on telotarsus 0.47 the length of the segment from the proximal end. Subterminal tarsal setae unequally bifurcated at about the middle and each branch with several spinules.

Measurements (in mm): Body length 3.44. Carapace 1.02 long, greatest width 0.74. Chelicera 0.63 long by 0.29 broad; movable finger 0.43 long. Palpal trochanter 0.75 by 0.26; femur 1.69 by 0.24; tibia (with pedicel) 1.52 by 0.29; tibial pedicel 0.65 by 0.11; chela (without pedicel 2.37 by 0.40; chelal pedicel 0.25 by 0.19; hand 0.84 by 0.38; movable finger 1.63 by 0.14. Leg I: basifemur 0.79 by 0.16; telofemur 0.59 by 0.15; tibia 0.76 by 0.11; metatarsus 0.40 by 0.09; telotarsus 0.58 by 0.08. Leg IV: entire femur 1.37 long; basifemur 0.63 by 0.23; telofemur 0.74 by 0.22; tibia 1.27 by 0.14; metatarsus 0.50 by 0.11; telotarsus 0.76 by 0.09.

Remarks: This highly modified species most closely resembles Microcreagris valentinei Chamberlin among other American forms in the genus. It can, however, be distinguished easily from M. valentinei by the following combination of characters:



Figs. 1-2. Microcreagris nickajackensis, n. sp., holotype male.
1. Dorsal view of left palp. 2. Lateral view of right chela.

- 1) 26 setae on the carapace,
- 2) only seven setae on anterior genital operculum of male,
- 3) six or seven setae on cheliceral palm,
- 4) less attenuated palpal podomeres,
- 5) base of chelal hand more clearly separated from pedicel.

Geographically, the nearest known cavernicolous species of the genus are M. persephone Chamberlin and M. pluto Chamberlin from caves in Marshall County, Alabama. M. nickajackensis has considerably more attenuated appendages than either of these species and also differs from them in details of the carapacal and tergal chaetotaxies. Since very little is known of the epigeal species of Microcreagris in Tennessee and Alabama, nothing can yet be determined about the relations of the carvernicolous forms to their epigeal ancestors.

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## Ctenophthalmus cophurus schmiederi n. ssp. (Siphonaptera)

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High up in the Western Usambara Mountains of northeast Tanzania 16 miles northwest of Lushoto at the edge of the great Shume Forest Reserve there lies on the brink of an almost 4,000 ft escarpment a point known as "World View." Here one can meditate in jungle silence while looking out over the parched plains below through which the Mkomazi River flows to water the large masses of game in the Mkomazi Game Reserve that lies on the Umba Steppe. Close at hand is the ghost